

ABSTRACT OF THE DISCLOSURE

A propeller control generates a once per revolution (1P) blade thrust variation through cyclic pitch of rigidly mounted non-flapping propeller blades. The resultant shaft bending moment is used to provide aircraft attitude control. Axial translation of a pitch change assembly including a pitch change yoke along an axis of rotation drives a pitch link attached to each propeller blade to collectively change the propeller blade pitch angle. The pitch change yoke includes a translating pitch change yoke portion and an articulatable pitch change yoke portion. Deflection of the articulatable pitch change yoke portion changes the pitch change effect of each pitch link as a function of its angular position such that a sinusoidal pitch angle is superimposed on normal pitch angle. Cyclic pitch change actuators deflect the articulatable pitch change yoke portion in any angular direction while the linear deflection of the cyclic pitch change actuators generate the magnitude of the cyclic pitch.

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